## RAW SEQUENCE LISTING



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/662, 6/3A

Source: 10/662, 6/3A

Date Processed by STIC: 12/22/06

## ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 12/22/2006
PATENT APPLICATION: US/10/662,613A TIME: 18:39:24

Input Set : N:\efs\12\_22\_06\10662613a\_efs\PTO.AMC.txt

Output Set: N:\CRF4\12222006\J662613A.raw

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3 <110> APPLICANT: Farid, Hossain A.
             Otieno, Charles J.
             Benkel, Bernhard F.
      7 <120> TITLE OF INVENTION: Insulin-Like Growth Factor-1 Receptor (IGF-1R) Polymorphic
             Alleles and Use of the Same to Identify DNA Markers for
     9
             Reproductive Longevity
    11 <130> FILE REFERENCE: P05562US00
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/662,613A
     14 <141> CURRENT FILING DATE: 2003-09-15
                                                            see pb
    16 <160> NUMBER OF SEQ ID NOS: 23
    18 <170> SOFTWARE: PatentIn version 3.3
    20 <210> SEO ID NO: 1
    21 <211> LENGTH: 4500
    22 <212> TYPE: DNA
    23 <213> ORGANISM: Mus musculus
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    30 aacgactatc agcagctgaa gcgcctggaa aactgcacgg tgatcgaggg cttcctccac
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    32 atcctgctca tctccaaggc cgaggactac cgaagctacc gcttccccaa gctcaccgtc
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    34 atcactgagt acttgctgct cttccgagtc gctggcctcg agagcctggg agacctcttc
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    36 cccaacctca cagtcatccg tggctggaaa ctcttctaca actacgcact ggtcatcttc
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    38 gagatgacca atctcaagga tattgggctt tataatctga ggaacattac tcggggggcc
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    40 atcaggattg agaagaacgc cgacctctgt tacctctcca ccatagactg gtctctcatc
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    46 tacaactacc gctgctggac cacaaatcgc tgccagaaaa tgtgcccaag tgtgtgcggg
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    72 taccgcatgg aggaagtgac cggaaccaag ggacgccaga gcaaagggga cataaacacc
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    74 aggaacaacg gagagcgagc ttcctgtgaa agtgatgttc tccgtttcac ctccaccacg
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    76 acctggaaga accgaatcat cataacgtgg caccggtacc ggccgccgga ctaccgggat
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78 ctcatcagct tcacagttta ctacaaggag gcaccattta aaaacgttac ggaatatgac

1620

## RAW SEQUENCE LISTING DATE: 12/22/2006 PATENT APPLICATION: US/10/662,613A TIME: 18:39:24

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Output Set: N:\CRF4\12222006\J662613A.raw

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86 gaaatettgt acattegeae caatgettea gteeetteea tteeeetaga tgteetetea
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88 gcatcaaact cttcctctca gctgattgtg aagtggaatc ctccaactct gcccaatggt
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90 aacttgagtt actacattgt gaggtggcag cggcagcccc aggatggtta cctgtaccgg
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92 cacaactact gctccaaaga caaaataccc atcagaaagt acgccgatgg taccatcgac
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94 gtggaggagg tgacggaaaa tcccaagaca gaagtgtgtg gtggtgataa agggccatgc
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96 tgcgcttgcc ctaaaactga agctgagaag caggctgaga aggaggaggc tgagtaccgt
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98 aaagtetttg agaattteet teacaattee atetttgtge eeaggeeega aaggaggegg
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104 agcagagtgg ataacaagga gaggactgtc atctccaacc tccqqccttt cactctqtac
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106 cgcatcgata tccacagctg caaccacgag gctgagaagc tgggctgcag cgcctccaac
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114 gtgtccagac aggagtacag gaagtacgga ggggccaaac tcaaccgtct aaacccaggg
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118 gtgttcttct atgtccccgc caaaacgacg tatgagaact tcatgcatct gatcattgct
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122 agaaagagaa ataacagcag gttgggcaat ggagtgctgt atgcttctgt gaaccccgag
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130 agtatgcgtg aaagaatcga gtttctcaac gaggcctcgg tgatgaagga gttcaattgt
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132 caccatgtgg tccggttgct gggtgtggta tcccaaggcc agcccaccct ggtcatcatg
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134 gaactaatga cacgcggtga tctcaaaagt tatctccggt ctctgaggcc agaagtggag
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RAW SEQUENCE LISTING DATE: 12/22/2006
PATENT APPLICATION: US/10/662,613A TIME: 18:39:24

Input Set : N:\efs\12\_22\_06\10662613a\_efs\PTO.AMC.txt
Output Set: N:\CRF4\12222006\J662613A.raw

178 <211> LENGTH: 1373 179 <212> TYPE: PRT 180 <213> ORGANISM: Mus musculus 182 <400> SEQUENCE: 2 184 Met Lys Ser Gly Ser Gly Gly Gly Ser Pro Thr Ser Leu Trp Gly Leu 188 Val Phe Leu Ser Ala Ala Leu Ser Leu Trp Pro Thr Ser Gly Glu Ile 192 Cys Gly Pro Gly Ile Asp Ile Arg Asn Asp Tyr Gln Gln Leu Lys Arg 196 Leu Glu Asn Cys Thr Val Ile Glu Gly Phe Leu His Ile Leu Leu Ile 55 200 Ser Lys Ala Glu Asp Tyr Arg Ser Tyr Arg Phe Pro Lys Leu Thr Val 70 204 Ile Thr Glu Tyr Leu Leu Phe Arg Val Ala Gly Leu Glu Ser Leu 208 Gly Asp Leu Phe Pro Asn Leu Thr Val Ile Arg Gly Trp Lys Leu Phe 105 212 Tyr Asn Tyr Ala Leu Val Ile Phe Glu Met Thr Asn Leu Lys Asp Ile 115 120 216 Gly Leu Tyr Asn Leu Arg Asn Ile Thr Arg Gly Ala Ile Arg Ile Glu 135 220 Lys Asn Ala Asp Leu Cys Tyr Leu Ser Thr Ile Asp Trp Ser Leu Ile 150 155 224 Leu Asp Ala Val Ser Asn Asn Tyr Ile Val Gly Asn Lys Pro Pro Lys 165 170 228 Glu Cys Gly Asp Leu Cys Pro Gly Thr Leu Glu Glu Lys Pro Met Cys 180 185 232 Glu Lys Thr Thr Ile Asn Asn Glu Tyr Asn Tyr Arg Cys Trp Thr Thr 200 236 Asn Arg Cys Gln Lys Met Cys Pro Ser Val Cys Gly Lys Arg Ala Cys 215 240 Thr Glu Asn Asn Glu Cys Cys His Pro Glu Cys Leu Gly Ser Cys His 241 225 230 235 244 Thr Pro Asp Asp Asn Thr Thr Cys Val Ala Cys Arg His Tyr Tyr Tyr 245 250 248 Lys Gly Val Cys Val Pro Ala Cys Pro Pro Gly Thr Tyr Arg Phe Glu 260 265 252 Gly Trp Arg Cys Val Asp Arg Asp Phe Cys Ala Asn Ile Pro Asn Ala 275 280 256 Glu Ser Ser Asp Ser Asp Gly Phe Val Ile His Asp Asp Glu Cys Met 290 295 300 260 Gln Glu Cys Pro Ser Gly Phe Ile Arg Asn Ser Thr Gln Ser Met Tyr 310 315 264 Cys Ile Pro Cys Glu Gly Pro Cys Pro Lys Val Cys Gly Asp Glu Glu 325 330 268 Lys Lys Thr Lys Thr Ile Asp Ser Val Thr Ser Ala Gln Met Leu Gln 345 272 Gly Cys Thr Ile Leu Lys Gly Asn Leu Leu Ile Asn Ile Arg Arg Gly

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Output Set: N:\CRF4\12222006\J662613A.raw

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276 Asn Asn Ile Ala Ser Glu Leu Glu Asn Phe Met Gly Leu I	ie Giu vai
277 370 375 380	
280 Val Thr Gly Tyr Val Lys Ile Arg His Ser His Ala Leu V	
281 385 390 395	400
284 Ser Phe Leu Lys Asn Leu Arg Leu Ile Leu Gly Glu Glu G	ln Leu Glu
285 405 410	415
288 Gly Asn Tyr Ser Phe Tyr Val Leu Asp Asn Gln Asn Leu G	ln Gln Leu
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292 Trp Asp Trp Asn His Arg Asn Leu Thr Val Arg Ser Gly L	ys Met Tyr
293 435 440 445	
296 Phe Ala Phe Asn Pro Lys Leu Cys Val Ser Glu Ile Tyr A	rg Met Glu
297 450 455 460	
300 Glu Val Thr Gly Thr Lys Gly Arg Gln Ser Lys Gly Asp I	le Asn Thr
301 465 470 475	480
304 Arg Asn Asn Gly Glu Arg Ala Ser Cys Glu Ser Asp Val L	eu Arg Phe
305 485 490	495
308 Thr Ser Thr Thr Trp Lys Asn Arg Ile Ile Ile Thr T	rp His Arg
309 500 505 5	10
312 Tyr Arg Pro Pro Asp Tyr Arg Asp Leu Ile Ser Phe Thr V	al Tyr Tyr
313     515     520     525	
316 Lys Glu Ala Pro Phe Lys Asn Val Thr Glu Tyr Asp Gly G	ln Asp Ala
317 530 535 540	
320 Cys Gly Ser Asn Ser Trp Asn Met Val Asp Val Asp Leu P	ro Pro Asn
321 545 550 555	560
324 Lys Glu Gly Glu Pro Gly Ile Leu Leu His Gly Leu Lys P	ro Trp Thr
325 565 570	575
328 Gln Tyr Ala Val Tyr Val Lys Ala Val Thr Leu Thr Met V	al Glu Asn
329 580 585 5	90
332 Asp His Ile Arg Gly Ala Lys Ser Glu Ile Leu Tyr Ile A	rg Thr Asn
333 595 600 605	
336 Ala Ser Val Pro Ser Ile Pro Leu Asp Val Leu Ser Ala S	er Asn Ser
337 610 615 620	
340 Ser Ser Gln Leu Ile Val Lys Trp Asn Pro Pro Thr Leu P	ro Asn Gly
341 625 630 635	640
344 Asn Leu Ser Tyr Tyr Ile Val Arg Trp Gln Arg Gln Pro G	ln Asp Gly
345 645 650	655
348 Tyr Leu Tyr Arg His Asn Tyr Cys Ser Lys Asp Lys Ile P	ro Ile Arg
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352 Lys Tyr Ala Asp Gly Thr Ile Asp Val Glu Glu Val Thr G	lu Asn Pro
353 675 680 685	
356 Lys Thr Glu Val Cys Gly Gly Asp Lys Gly Pro Cys Cys A	la Cys Pro
357 690 695 700	
360 Lys Thr Glu Ala Glu Lys Gln Ala Glu Lys Glu Glu Ala G	lu Tyr Arg
361 705 710 715	720
364 Lys Val Phe Glu Asn Phe Leu His Asn Ser Ile Phe Val P	ro Arg Pro
365 725 730	735
368 Glu Arg Arg Arg Asp Val Met Gln Val Ala Asn Thr T	hr Met Ser

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Output Set: N:\CRF4\12222006\J662613A.raw

372 Ser Arg Ser Arg Asn Thr Thr Val Ala Asp Thr Tyr Asn Ile Thr Asp 376 Pro Glu Glu Phe Glu Thr Glu Tyr Pro Phe Phe Glu Ser Arg Val Asp 380 Asn Lys Glu Arg Thr Val Ile Ser Asn Leu Arg Pro Phe Thr Leu Tyr 384 Arg Ile Asp Ile His Ser Cys Asn His Glu Ala Glu Lys Leu Gly Cys 388 Ser Ala Ser Asn Phe Val Phe Ala Arg Thr Met Pro Ala Glu Gly Ala 392 Asp Asp Ile Pro Gly Pro Val Thr Trp Glu Pro Arg Pro Glu Asn Ser 396 Ile Phe Leu Lys Trp Pro Glu Pro Glu Asn Pro Asn Gly Leu Ile Leu 400 Met Tyr Glu Ile Lys Tyr Gly Ser Gln Val Glu Asp Gln Arg Glu Cys 404 Val Ser Arg Gln Glu Tyr Arg Lys Tyr Gly Gly Ala Lys Leu Asn Arg 408 Leu Asn Pro Gly Asn Tyr Thr Ala Arg Ile Gln Ala Thr Ser Leu Ser 412 Gly Asn Gly Ser Trp Thr Asp Pro Val Phe Phe Tyr Val Pro Ala Lys 416 Thr Thr Tyr Glu Asn Phe Met His Leu Ile Ile Ala Leu Pro Val Ala 420 Ile Leu Leu Ile Val Gly Gly Leu Val Ile Met Leu Tyr Val Phe His 424 Arg Lys Arg Asn Asn Ser Arg Leu Gly Asn Gly Val Leu Tyr Ala Ser 428 Val Asn Pro Glu Tyr Phe Ser Ala Ala Asp Val Tyr Val Pro Asp Glu 432 Trp Glu Val Ala Arg Glu Lys Ile Thr Met Asn Arg Glu Leu Gly Gln 436 Gly Ser Phe Gly Met Val Tyr Glu Gly Val Ala Lys Gly Val Val 440 Lys Asp Glu Pro Glu Thr Arg Val Ala Ile Lys Thr Val Asn Glu 444 Ala Ala Ser Met Arg Glu Arg Ile Glu Phe Leu Asn Glu Ala Ser 448 Val Met Lys Glu Phe Asn Cys His His Val Val Arg Leu Leu Gly 452 Val Val Ser Gln Gly Gln Pro Thr Leu Val Ile Met Glu Leu Met 456 Thr Arg Gly Asp Leu Lys Ser Tyr Leu Arg Ser Leu Arg Pro Glu 460 Val Glu Gln Asn Asn Leu Val Leu Ile Pro Pro Ser Leu Ser Lys 464 Met Ile Gln Met Ala Gly Glu Ile Ala Asp Gly Met Ala Tyr Leu 468 Asn Ala Asn Lys Phe Val His Arg Asp Leu Ala Ala Arg Asn Cys

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/662,613A

DATE: 12/22/2006 TIME: 18:39:25

Input Set : N:\efs\12\_22\_06\10662613a\_efs\PTO.AMC.txt

Output Set: N:\CRF4\12222006\J662613A.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:7; N Pos. 3177,3178

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/662,613A

DATE: 12/22/2006 TIME: 18:39:25

Input Set : N:\efs\12\_22\_06\10662613a\_efs\PTO.AMC.txt
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L:13 M:270 C: Current Application Number differs, Wrong Format L:6716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:3120